

Montana DEQ Forest Fire Smoke Advisory

August 19, 2007

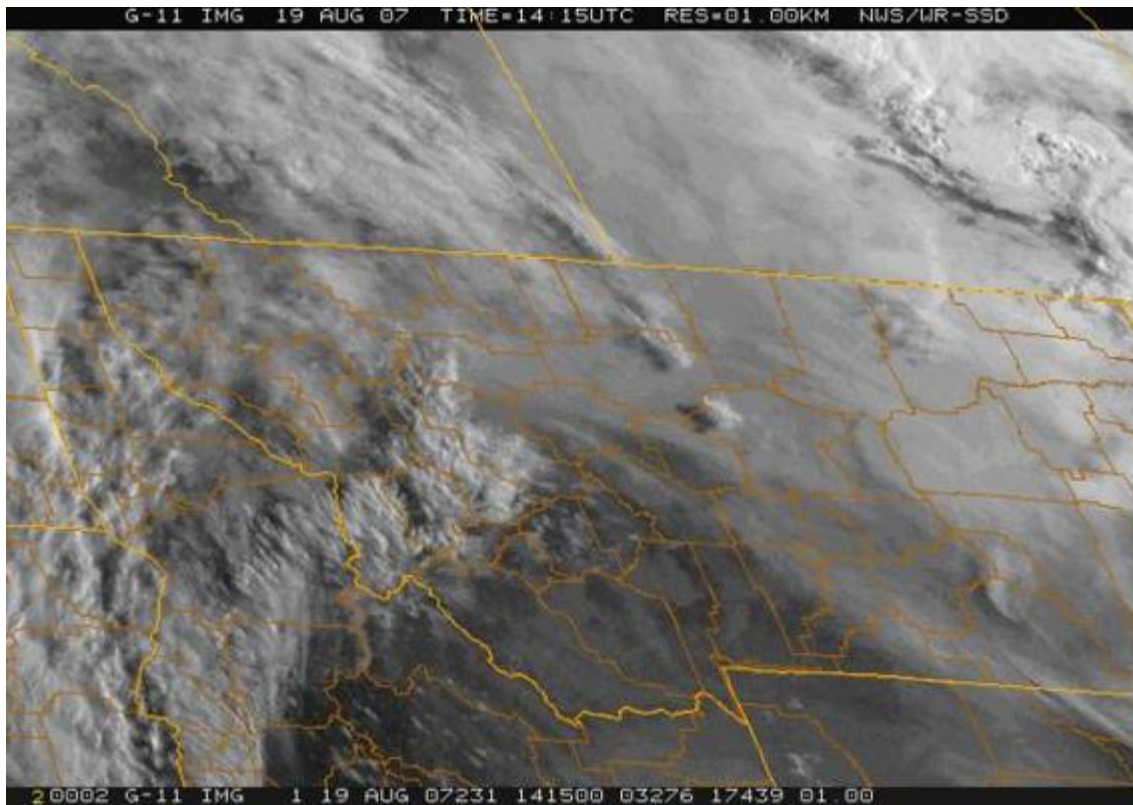
10:00 AM Sunday

FORECAST:

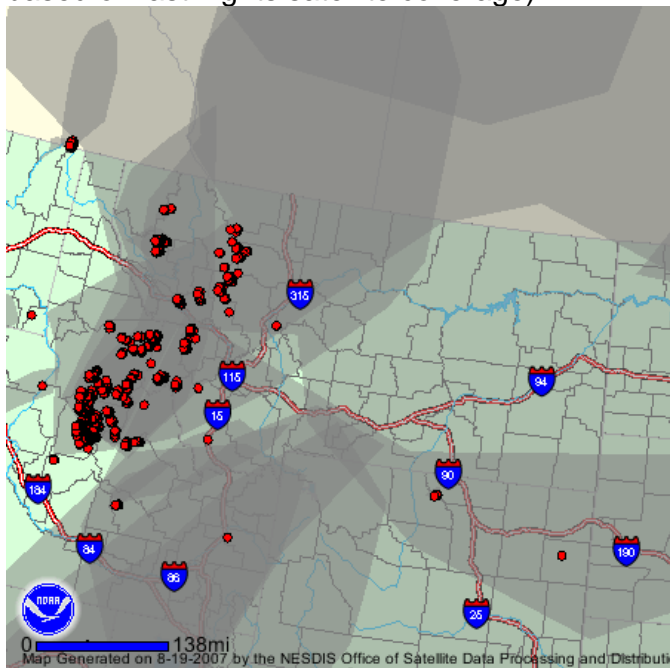
A strong push of air from the southwest ahead of an approaching trough has lifted the smoke out of southwestern Montana this morning. Smoke remains trapped in the Bitterroot Valley and conditions are unhealthy there at this time. The smoke had lifted for a time in many parts of western Montana late last night but has started to impact The Flathead, Jocko, and Missoula Valleys again with unhealthy for sensitive levels currently impacting many areas. Smoke has also reached the surface across the Front Range and the plains as far east as Lewistown.

We will see one more smoky day today ahead of a strong cold front that will sweep into northwestern Montana later this afternoon and will push through the state by Monday evening. This frontal passage will provide strong southwest winds at first changing to the west and finally the northwest. Red Flag warnings have been posted in most areas for strong winds and low relative humidities ahead of the front. Smoke production rates will be very high through this period and strong direct plume impacts will occur downwind of the active fires. As the cooler air mass moves into the state, the residual smoke that has been hanging around for so long will finally move out of the state leaving only the current day's smoke to deal with. There will be some rain with this system along with much cooler temperatures and higher relative humidity. Many of the fires in Idaho and Montana should see a couple of days of much lower fire activity starting tomorrow. This should allow a breath of fresh air in many areas that have been trapped in a long cycle of smoky days and nights. We still have to get by today however, and there is still plenty of smoke around. Smoke will be mixing down through the morning and early afternoon for noticeable surface impacts in many locations. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

A morning satellite photo centered on Great Falls is illustrated below:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage).



Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lq_fire2.php

This satellite photo taken at 6:30 PM last night shows the plumes of smoke from fires in Idaho, and Montana stretching out to the northeast due to an active afternoon of burning.



This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

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DISCUSSION:

West of the divide, Hamilton is at [unhealthy](#) this morning and Whitefish, Kalispell, and Missoula are at [unhealthy for sensitive](#). Smoke along the Front Range and across the plains has Cut Bank and Choteau at [unhealthy for sensitive](#) and Lewistown and Helena at MODERATE. The advisories in the table below represent conditions between midnight and 8 AM and may change substantially through the day. Residents downwind of the active fires and experiencing impacts from residual

smoke will need to pay close attention to conditions in their area and use the [visibility guidelines](#) to determine current conditions. Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local visibility to guide activity decisions as the situation changes.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality

Updated 10 AM August 19, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

<u>HAZARDOUS</u>	
<u>VERY UNHEALTHY</u>	
<u>UNHEALTHY</u>	Hamilton T24
<u>UNHEALTHY FOR SENSITIVE GROUPS</u>	Kalispell Vis(2) Whitefish Vis(2) Missoula T8 Cut Bank Vis(8) Choteau T24
<u>MODERATE</u>	Helena Vis(2) Lewistown Vis(4)